

We Claim:

1. A system for the allocation of energy services within an energy grid comprising:

a. a plurality of mobile, selectively actuatable energy generating units each connected to the energy grid;

5 b. a database populated with operating condition variables for each of the mobile energy generating units, actuation of each of the energy generating units based on the operating condition variables;

c. data inputs for receiving actual operating conditions associated with each of the energy generating units; and

10 d. a processor for analyzing the actual operating conditions and the operating condition variables to actuate at least one of the energy generating units when the actual operating conditions have a predetermined value as provided by the operating condition variables.

2. The system of Claim 1 wherein each of the plurality of mobile energy generating units is connected to the energy grid at a first location, has a first actuation time for a first time duration, and produces a first energy amount wherein the processor analyzes modifications to the operating condition variables in the database to
5 provide at least one of a second location, second actuation time for a second time duration and a second energy amount for the mobile energy generating units.

3. The system of Claim 1 wherein the operating condition variables are selected from the group consisting of air temperature, air humidity, power outage, energy

load growth, partial grid shut-down, voltage change and emergency power back-up.

4. The system of Claim 1 wherein each of the mobile energy generating units has an operation cost based on predetermined factors, at least one alternative energy generating source has an operation cost also based on the predetermined factors, the processor calculating the operation cost for at least one mobile energy generating unit and for the at least one alternative energy generating source, the processor only actuating the at least one energy generating unit when its operating cost is less than the operating cost of the at least one alternative energy source.

5. A method for the allocation of energy services within an energy grid comprising:
- a. providing a plurality of mobile, selectively actuatable energy generating units each connected to the energy grid;
 - b. providing a database populated with operating condition variables for each of the mobile energy generating units, actuation of each of the energy generating units based on the operating condition variables;
 - c. data inputs for receiving actual operating conditions associated with each of the energy generating units; and
 - d. a processor for analyzing the actual operating conditions and the operating condition variables to actuate at least one of the energy generating units when the actual operating conditions have a predetermined value as provided by the operating condition variables.

6. The method of Claim 5 wherein each of the plurality of mobile energy generating units is connected to the energy grid at a first location, has a first actuation time for a first time duration, and produces a first energy amount wherein the processor analyzes modifications to the operating condition variables in the database to
5 provide at least one of a second location, second actuation time for a second time duration and a second energy amount for the mobile energy generating units.
7. The method of Claim 5 wherein the operating condition variables are selected from the group consisting of air temperature, air humidity, power outage, energy load growth, partial grid shut-down, voltage change, and emergency power back-up.
8. The method of Claim 5 wherein each of the mobile energy generating units has an operation cost based on predetermined factors, at least one alternative energy generating source has an operation cost also based on the predetermined factors, the processor calculating the operation cost for at least one mobile energy
5 generating unit and for the at least one alternative energy generating source, the processor only actuating the at least one energy generating unit when its operating cost is less than the operating cost of the at least one alternative energy source.
9. A system for the allocation of energy services within an energy grid comprising:

- a. a plurality of mobile, selectively actuatable energy generating units each connected to the energy grid;
- b. a database populated with operating condition variables for each of the mobile energy generating units, actuation of each of the energy generating units based on the operating condition variables;
- c. data inputs for receiving actual operating conditions associated with each of the energy generating units; and
- d. a processor for analyzing the actual operating conditions and the operating condition variables to actuate at least one of the energy generating units when the actual operating conditions have a predetermined value as provided by the operating condition variables, wherein each of the mobile energy generating units has an operation cost based on predetermined factors, at least one alternative energy generating source has an operation cost also based on the predetermined factors, the processor calculating the operation cost for at least one mobile energy generating unit and for the at least one alternative energy generating source, the processor only actuating the at least one energy generating unit when its operating cost is less than the operating cost of the at least one alternative energy source.

10. The system of Claim 9 wherein each of the plurality of mobile energy generating units is connected to the energy grid at a first location, has a first actuation time for a first time duration, and produces a first energy amount wherein the processor analyzes modifications to the operating condition variables in the database to

5 provide at least one of a second location, second actuation time for a second time duration and a second energy amount for the mobile energy generating units.

11. The system of Claim 9 wherein the operating condition variables are selected from the group consisting of air temperature, air humidity, power outage, energy load growth, partial grid shut-down, voltage change and emergency power back-up.

12. A method for the allocation of energy services within an energy grid comprising:

- a. providing a plurality of mobile, selectively actuatable energy generating units each connected to the energy grid;
- b. providing a database populated with operating condition variables for each
5 of the mobile energy generating units, actuation of each of the energy generating units based on the operating condition variables;
- c. data inputs for receiving actual operating conditions associated with each of the energy generating units; and
- d. a processor for analyzing the actual operating conditions and the operating
10 condition variables to actuate at least one of the energy generating units when the actual operating conditions have a predetermined value as provided by the operating condition variables, wherein each of the mobile energy generating units has an operation cost based on predetermined factors, at least one alternative energy generating source has an operation
15 cost also based on the predetermined factors, the processor calculating the

operation cost for at least one mobile energy generating unit and for the at least one alternative energy generating source, the processor only actuating the at least one energy generating unit when its operating cost is less than the operating cost of the at least one alternative energy source.

13. The method of Claim 12 wherein each of the plurality of mobile energy generating units is connected to the energy grid at a first location, has a first actuation time for a first time duration, and produces a first energy amount wherein the processor analyzes modifications to the operating condition variables in the database to provide at least one of a second location, second actuation time for a second time duration and a second energy amount for the mobile energy generating units.

14. The method of Claim 12 wherein the operating condition variables are selected from the group consisting of air temperature, air humidity, power outage, energy load growth, partial grid shut-down, voltage change, and emergency power back-up.